

# NON-VARIABLE ANNUITY PBR UPDATE

John R. Miller, MAAA, FSA, Co-Chairperson  
Matthew Coleman, MAAA, FSA, Co-Chairperson  
Annuity Reserves Workgroup  
American Academy of Actuaries



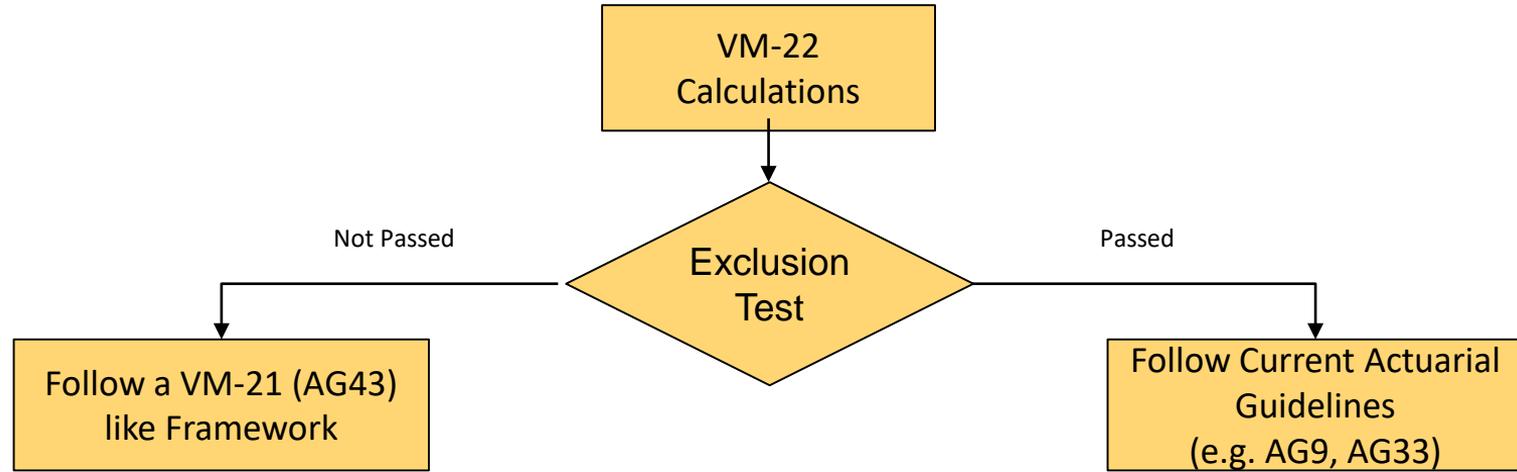
AMERICAN ACADEMY of ACTUARIES

*Objective. Independent. Effective.™*

August 2, 2018

NAIC 2018 Summer National Meeting – Life Actuarial Task Force - Boston, MA

# VM-22 Approach



- ❑ An exclusion test will determine which set of calculations to follow
- ❑ The ARWG will focus on areas of VM-21 (AG43) that need to be modified for non-variable annuities



# Potential Exclusion Test Methodology

## Definitions:

FCARVM = Formulaic CARVM = The formulaic application of the Commissioners Annuity Reserve Valuation Method, the current standard for non-variable annuities, found in VM-C [Actuarial Guidelines 9, 33, 35]

CSV = The Cash Surrender Value (CSV) [the Floor for all reserves]

AV = Account Value or contract value

MR = the Modeled Reserve



# Potential Exclusion Test Methodology

Possible methodology:

**If  $FCARVM \leq CSV$** , the calculation of the MR [Modeled Reserve] is optional  
Then the Reserve = CSV, or Reserve = Maximum [MR, CSV]

**If  $CSV \leq FCARVM \leq AV$** , the calculation of the MR [Modeled Reserve] is optional  
Then the Reserve = FCARVM, or Reserve = Maximum [MR, CSV]  
Note: contracts without cash surrender values would meet this requirement  
Note: *In this case the Reserve could be less than FCARVM*

**If  $FCARVM > AV$** , the calculation of the MR is required  
Then the Reserve = Maximum [MR, CSV]  
Note: *In this case the Reserve could be less than FCARVM*



# Potential Exclusion Test Methodology

## Rationale for the methodology:

- ❑ Companies would continue to calculate formulaic CARVM reserves under the currently required methods.
- ❑ The Modeled Reserve would be optional for some contracts and only required for contracts that produce formulaic CARVM reserves in excess of the policy contract value.
- ❑ Rules would need to be developed to minimize gaming of the optionality aspect of utilizing the Modeled Reserve.
- ❑ Asset adequacy testing of formulaic CARVM reserves generally demonstrates that the formula reserves are adequate.
- ❑ Asset adequacy testing would still be required.



# Potential Exclusion Test Methodology

## Rationale for the methodology (continued):

- There is general agreement that the “issues” or flaws in the formulaic CARVM method (AG 33 in particular) are that it generally produces overly conservative reserves rather than inadequate reserves.
- The Academy SVL Interest Rate Modernization Work Group is reviewing the methods for deriving valuation interest rates for deferred annuities similar to their recent work on SPIA’s and jumbo annuities.
- The anticipated approach to calculating the Modeled Reserve (patterned after AG 43 and VM 21) will, by design, produce reserves that satisfy asset adequacy requirements.
- If the FCARVM reserve exceeds the AV, as may be the case for a GLWB or GLIB, that indicates there is the potential for the policyholder to receive benefits in excess of the AV. We believe a Modeled Reserve is better suited to capture the company’s potential risk exposure.



# Potential Exclusion Test Methodology

## Application of the Methodology:

- Valuation interest rates and mortality assumptions are locked at issue, thus testing at the time of issue should be sufficient for most product designs.
  - The long term relationships between the CSV, FCARVM and the AV should be known at issue for performing the test and documenting the results of the exclusion test.
  - Products that provide changing future guarantees of some form could require updated or annual testing.
  - A plan that meets the exclusion test for issues in a particular calendar year may not satisfy the tests for future issues.
- The test would be prescribed as a per policy test but demonstrating that a policy qualifies could, in many cases, be performed at a higher level (plan code or policy form).
- Annual retesting could be a requirement but may not be needed for some designs.
- Should the requirement to calculate the Modeled Reserve be permanent ?



AMERICAN ACADEMY of ACTUARIES

*Objective. Independent. Effective.™*

© 2018 American Academy of Actuaries. All rights reserved.  
May not be reproduced without express permission.

# Questions?

- John R. Miller, MAAA, FSA, Co-Chairperson  
Matthew Coleman, MAAA, FSA, Co-Chairperson  
Annuity Reserves Workgroup  
American Academy of Actuaries
  
- Ian Trepanier  
Life Policy Analyst  
American Academy of Actuaries  
[Trepanier@actuary.org](mailto:Trepanier@actuary.org)

